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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/536,858

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William Spencer Worley III

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08/23/2004

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EXAMINER

LIANG, REGINA

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/536,858

Applicant(s)

WORLEY ET AL.

Examiner

Regina Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-60 of U.S. Patent No. 6,005,558.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the present claims and the patented claims is that the present claims recite a switch response to the data bit while the patented claims recite a multiplexer responsive to the data bit, however, it would have been obvious to realize the switch is broader term of multiplexer.

The following is an example for comparing claim 1 of this application and claim 1 of patented claims.

Claim 1 of this application

Claim 1 of U.S. Patent No. 6,005,558

A display comprising:

A display comprising:

A first voltage supply line;

A first voltage supply terminal for

| | |
|--|--|
| | providing a first predetermined voltage |
| A second voltage supply line; | A second voltage supply terminal for providing a second predetermined voltage; |
| A plurality of pixel cells, each pixel cell including a pixel electrode, a storage element for storing a data bit, and a switch responsive to said data bit and operative to selectively couple said pixel electrode with one of said first voltage supply line and said second voltage supply line. | A pixel electrode; a storage element for storing a data bit; and a multiplexer responsive to said data bit and operative to selectively couple said pixel electrode with said first and second voltage supply terminals. |

Claim Rejections - 35 USC § 103

3. Claims 1, 3, 4, 9, 11, 12, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama (US. PAT NO. 5,952,991) in view of McKnight (US. PAT. NO. 6,225,991).

As to claims 1, 9, 17, Akiyama discloses a display device comprising a plurality of pixel cells (Fig. 1B), each pixel cell including a pixel electrode (105 in Fig. 2) and a storage element (memory portion in Fig. 1A, C1 and C2 in Fig. 2) for storing a switched state. Akiyama also discloses display device comprising a first voltage supply line and a second voltage supply line (signal line 1 and signal line 2 in Fig. 1A, signal line Sm and signal line Vac in Figs. 2A, 2B), a switch (101, 107) operative to selectively coupled the pixel electrode with one of the first voltage supply line and the second voltage supply line (col. 5, lines 33-57, col. 6, lines 48-58 for example). Akiyama does not explicitly

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disclose the storage element storing a data bit. However, McKnight teaches a display pixel cell comprising a data latch for storing a data bit (col. 3, lines 30-32, 40-48). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the storage element of Akiyama to store a data bit as taught by McKnight since the data is stored indefinitely without refresh.

As to claims 3, 11, Fig. 1B of Akiyama teaches the display device comprising a first voltage source (first signal line driving circuit 103) and a second voltage source (second signal line driving circuit 108).

As to claims 4, 12, 19, Akiyama teaches the display comprising a common electrode and a third voltage source coupled to assert a third predetermined voltage on the common electrode (Vcom at terminal 106 as shown in Figs. 2A, 2B, and col. 5, lines 45-47).

As to claim 18, the control circuit in Fig. 1B of Akiyama reads on the controller means as claimed.

4. Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama and McKnight as applied to claim 1 above, and further in view of Pinkham (US. P.A.T NO. 6,518,945).

As to claims 2, 10, Akiyama as modified by McKnight does not disclose the switches comprising multiplexers. However, Pinkham teaches the switches in the display pixels comprising multiplexers (col. 3, lines 14-16). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

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switches of Akiyama as modified by McKnight to comprising multiplexers as taught by Pinkham so as to provide a simple two-bit or two-level switching device.

Conclusion


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okumura et al (US. PAT. NO. 5,945,972), Akiyama et al (US. PAT. NO. 5,977,940).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (703) 305-4719. The examiner can normally be reached on Monday-Friday from 9AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


REGINA LIANG
PRIMARY EXAMINER
ART UNIT 2674

RL
8/20/04